Appendix M
Hazardous Materials and Solid Waste Analyses

Errata for Appendix M

Page M-5: The database listed as Resource Conservation and Recovery Information System (RCRIS) in the Comprehensive Development Plan Draft Environmental Assessment published April 12, 2007, is now known as RCRAInfo and is available online at http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.

APPENDIX M

Hazardous Materials and Solid Waste Analyses

This appendix provides a detailed explanation of the hazardous materials and solid waste analyses prepared for the Comprehensive Development Plan Environmental Review. A detailed explanation of the Pollution Prevention Plan analyses is provided in Section 5.12 in the main body of this environmental review document for the Comprehensive Development Plan.

M.1 Regulatory Setting, Background, and Methodology

This section describes the methodologies and data sources used to assess impacts on hazardous materials. A brief synopsis of data used to assess solid waste impacts is also provided.

M.1.1 Hazardous Materials

This section describes the methods used to identify and evaluate hazardous materials sites within and immediately adjacent to Sea-Tac Airport. Hazardous materials sites were identified through searches of regulatory databases, meetings with Port of Seattle personnel, review of a groundwater study report pertaining to the airport (completed for the Port of Seattle in February 2005 by Aspect Consulting), and visual reconnaissance of the study area.

Environmental Data Resources (EDR) conducted a database search within 0.5 mile of the projects identified in the Comprehensive Development Plan (EDR, 2005). Over 195 sites were identified from the search, and these were screened based on the site location relative to projects identified on the Comprehensive Development Plan. Only the sites within and immediately adjacent to the Comprehensive Development Plan projects (e.g., upgradient sites with releases to groundwater) are included in summary table (Table M-1, below).

M.1.1.1 Related Federal, State, and Local Regulations

Hazardous materials are classified based on the laws and regulations that define their characteristics and use by the U. S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology). In addition, several other local agencies support the protection of human health and the environment. These agencies and their functions are described in the following sections.

Federal EPA Regulations

EPA creates environmental regulations from laws that are developed by the legislative branch of the federal government. Many of these federal laws and the corresponding regulations relate to the safe manufacture, storage, transport, use, and disposal of hazardous materials, as well as the cleanup and reuse of sites contaminated by hazardous materials. States have the authority to enact federal regulations as written, or develop their own laws and regulations that are at least as stringent as the federal counterparts.

The environmental laws administered by EPA include the following:

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
- The Toxic Substance Control Act (TSCA)
- The Clean Water Act (CWA)
- The Clean Air Act (CAA)
- Safe Drinking Water Act (SDWA).

Through the CERCLA, RCRA, and TSCA laws, EPA tracks hazardous waste sites and users of hazardous substances. CERCLA, also known as Superfund, addresses problems associated with releases to the environment at closed or abandoned waste sites. EPA tracks these sites based on reported potential or actual releases to the environment, emergency response notifications, and cleanup progress at major release sites.

RCRA is concerned with the use of hazardous materials and the treatment, storage, and disposal of hazardous wastes. EPA and Ecology track hazardous waste management at individual facilities throughout the state. This is accomplished through notification and recordkeeping requirements that define the magnitude of waste generated (i.e., large or small quantity generators), the type of handling performed (e.g., treatment, storage or disposal), or identify whether a release to the environment has occurred.

Toxic substances are a subset of hazardous substances additionally regulated by the federal TSCA. The focus of TSCA is to evaluate human health and environmental effects of all new chemical substances and existing chemicals put to new uses. TSCA also stipulates additional controls governing disposal, beyond CERCLA and RCRA requirements, for specific toxic substances, such as polychlorinated biphenyls (PCBs). All TSCA sites are tracked by the EPA.

Washington State Department of Ecology

The Washington State Legislature and Ecology promulgate laws and regulations to enact or expand the federal environmental protection laws. Ecology enforces regulations that protect air, water, and land resources throughout the state, while working with local regulatory agencies such as county health departments and fire departments.

Ecology identifies and tracks hazardous substance sites (including petroleum releases) through the Model Toxics Control Act (MTCA) and the Toxics Cleanup Program. Any report of a release or suspected presence of a hazardous substance that may threaten human health or the environment requires that Ecology investigate the property. If an initial investigation confirms contamination is present and cleanup may be necessary, the property is entered on the Site Information System database.

Washington State Dangerous Waste Regulations implement the state Hazardous Waste Management Act and federal RCRA (as delegated by EPA) to designate dangerous and extremely hazardous wastes and provide for surveillance and monitoring until designated wastes are detoxified, reclaimed, neutralized, or properly disposed of. This includes tracking facilities based on required registration of underground storage tanks and maintaining an inventory of solid waste facilities and landfill sites.

Washington Labor and Industries

The Department of Labor and Industries (L&I) administers the Washington Industrial Safety and Health Act (WISHA). Through this Act, L&I has created health and safety regulations to protect workers. The WISHA regulations include provisions for training, workplace safety, and chemical-specific issues (e.g., lead and asbestos).

King County

The Seattle-King County Department of Public Health implements King County Solid Waste Regulations, which govern solid waste handling, storage, collection, transportation, treatment, use, processing, and disposal. As such, the county regulates disposal and treatment facilities that accept hazardous *materials* as part of the solid waste stream (these solid waste regulations do not apply to management of hazardous or dangerous *wastes*. The Department of Public Health issues permits and sets waste acceptance criteria for facilities that treat petroleum-contaminated soil and other special wastes.

The King County Department of Natural Resources operates the local wastewater treatment facilities that accept discharges to the sanitary sewer system. Hazardous materials may be discharged to the sanitary sewer subject to restrictions imposed by the department on a case-by-case basis. Each discharge requires a permit that is obtained for general operations at the time that work is performed for the location specified.

Puget Sound Clean Air Agency

The Puget Sound Clean Air Agency regulates air pollution sources in King, Pierce, Snohomish, and Kitsap counties. The agency is responsible for implementing the provisions of the federal Clean Air Act through enforcement of Regulations I, II, and III of the Puget Sound Clean Air Agency in the four counties. Hazardous materials may be discharged to the atmosphere subject to restrictions imposed by the agency on a case-by-case basis. Each discharge requires a permit obtained at the time that work is performed for the location specified.

M.1.1.2 Data Collection and Records Search

Facilities that generate hazardous waste and sites that have been identified with actual or potential hazardous materials are registered with either Ecology or EPA. These facilities and sites are tracked on databases available to the public for review. For this project, hazardous materials sites were identified through a search of federal and state regulatory databases, visual reconnaissance of the study area, and a review of Ecology's files maintained for facilities and sites on the databases (no federally tracked sites were identified, so no files were reviewed).

Federal Databases Searched

EPA maintains several databases to track properties or facilities that EPA has investigated or is currently investigating for releases or threatened releases of hazardous substances to the environment. The EPA also identifies and tracks hazardous waste from the point of generation to the point of disposal. The following databases were used to identify and evaluate potential sites of concern along the study area.

Comprehensive Environmental Response and Liability Information System (CERCLIS)

CERCLIS contains data on potentially hazardous waste sites that have been reported to EPA by states, municipalities, private companies, and private persons pursuant to Section 103 of

CERCLA. CERCLIS contains sites either proposed or on the National Priorities List (NPL) and sites in the screening and assessment phase for possible inclusion on the NPL. The CERCLIS list contains sites from 1983 to the present. Those CERCLIS sites designated as No Further Remedial Action Planned (NFRAP) have been removed from the CERCLIS listing based on an initial investigation where no contamination was found; contamination was removed quickly without the need to place the site on the NPL; or the contamination was not serious enough to require federal Superfund action or NPL consideration.

Emergency Response Notification System (ERNS)
The ERNS records and stores information on reported releases of oil and hazardous substances.

National Priorities List (NPL)
The NPL, a subset of CERCLIS, identifies over 1,200 sites nationwide for priority cleanup under the Superfund Program.

Resource Conservation and Recovery Information System (RCRIS)
RCRIS includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste, as identified by the Resource Conservation and Recovery Act (RCRA).

Corrective Action Report (CORRACTS)
CORRACTS identifies waste handlers with RCRA corrective action activity.

Facility Index System (FINDS)
The Facility Index System (FINDS) is an index of facilities (or sites) that are monitored or regulated by the EPA. FINDS uses several databases to track these sites, including:

- Permit Compliance System (PCS)
- Aerometric Information Retrieval System (AIRS)
- Docket for civil enforcement cases (DOCKET)
- Docket for criminal enforcement cases (C-DOCKET)
- Federal Underground Injection Control (FURS)
- Federal Facilities Information System (FFIS)
- State Environmental Laws and Statues (STATE)
- PCB Activity Data System (PADS).

The FINDS database is updated quarterly; the version evaluated during the study was dated April 2005.

Hazardous Materials Information Reporting System (HMIRS)
HMIRS contains hazardous materials spill incidents that are reported to U.S. Department of Transportation.

Materials Licensing Tracking System (MLTS)
The MLTS is maintained by the Nuclear Regulatory Commission (NRC); it lists approximately 8,100 sites nationwide that possess or use radioactive materials and are subject to NRC licensing requirements.

PCB Activity Database System (PADS)
The PADS is maintained by the EPA; it lists generators, transporters, commercial storers and/or brokers, and disposers of PCBs required to notify EPA of such activities.

RCRA Administrative Action Tracking System (RAATS)
RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by EPA.

Records of Decision (ROD)
ROD documents mandate a permanent remedy at an NPL (Superfund) site and contain technical and health-related information to aid in the cleanup.

Toxic Chemical Release Inventory System (TRIS)
TRIS identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under Superfund Amendments and Reauthorization Act (SARA) Title III Section 313.

Toxic Substance Control Act (TSCA)
TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. The list also includes the product volume of these substances by site.

State Databases Searched
The State of Washington and county governments also maintain databases of information on hazardous materials sites. The following databases were used to identify and evaluate sites along the study corridor.

Confirmed & Suspected Contaminated Sites List (CSCSL)
State hazardous substance site records are the state's equivalent to the federal Superfund CERCLIS. These sites may or may not be included on the federal CERCLIS list.

Drycleaners
This database identifies drycleaners registered with Ecology (using North American Industry Classification System [NAICS] codes of 812310 or 812320) as hazardous waste generators.

Hazardous Sites List (HSL)
The HSL is a subset of the CSCSL Report. It includes sites that have been assessed and ranked using the Washington Ranking Method (WARM).

Leaking Underground Storage Tank Site List (LUST)
LUST records contain an inventory of reported leaking underground storage tank incidents. The LUST list may also identify the type of material released and the affected media (i.e., air, soil, and water).

Solid Waste Facility Database (LF)
Solid waste facilities/landfill site records contain an inventory of solid waste disposal facilities or landfills across the state.

Spills
Spills reported to the Spill Preventing Preparedness and Response Division of Ecology are documented on this list.

Underground Storage Tank Database (UST)
USTs are regulated under Subtitle I of RCRA and must be registered with Ecology. The database contains information on the site location, number of tanks, materials stored, date of installation, and other information for registered tanks (does not include heating oil tanks).

Independent Cleanup Reports (ICR)
The ICR database identifies sites that have submitted remedial action reports to Ecology. These are independent remedial actions conducted without Ecology oversight or approval. Owners/operators are not under an order or decree to conduct these cleanup actions.

Voluntary Cleanup Program (VCP)
The VCP database identifies sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Historical Information
The Port of Seattle conducted a review of historical operations in 2003 to identify potential sites where groundwater may have been affected by airport operations (Aspect, 2005). A list of 13 potential release sites was developed based on an in-depth review of historical records. Operations at many of these sites were discontinued prior to the MTCA regulations in 1991 and would not have been identified on the search of regulatory databases.

M.1.2 Solid Waste
The information presented in this section has been provided by the Port of Seattle, addressing solid waste handling and pollution prevention practices at Sea-Tac Airport. The information provided was based on the main elements of a typical solid waste management plan and that presented in the Solid Waste section of the 1996 Sea-Tac Master Plan Update for the Final Environmental Impact Statement (Final EIS). Waste disposal invoices and recycling records were reviewed by the Port to provide a summary of waste stream and recycling volumes for 2004.

M.2 Existing Conditions
This section augments the existing conditions information related to hazardous materials and solid waste provided in Chapter 5, Section 5.12, in the main body of the environmental review.

M.2.1 Hazardous Materials
This section identifies documented hazardous materials release sites in the study area with a potential to affect construction and/or airport operations. It also describes the types of sites evaluated (e.g., documented or potential releases)

M.2.1.1 General Hazardous Materials Site Descriptions

Many businesses use hazardous materials and generate hazardous waste in their processes. If hazardous materials are handled or stored improperly, the result can be a release that adversely affects the environment. For example, many of the potential sites identified were facilities that use petroleum products (diesel and gasoline). If these materials are managed properly, the potential environmental impacts are limited.

Documented release sites and potential release sites were evaluated throughout the study area to identify those sites of highest concern. The evaluation included the following factors:

- Location of sites (i.e., within or adjacent to airport or Port of Seattle property)
- Type of media affected (i.e., soil or groundwater)
- Type of contaminant present (i.e., petroleum, nonpetroleum).

For example, sites that have known releases to groundwater would be of high concern in areas requiring construction dewatering. Groundwater contamination might affect construction activities in the short term and/or become a long-term cleanup liability issue. The same scenario would be of less concern for at-grade development because construction activities are not likely to contact groundwater and affect contamination. Releases to soil are generally of less concern, unless the site is located directly on the property being developed.

Documented Release Sites

Documented release sites are those locations that have been reported and registered by state and federal regulatory agencies on appropriate site tracking databases. Federal release sites identified across the study area were on the CERCLIS, ERNS, FINDS, and HMIRS databases. Ecology release sites were found on CSCSL, ICR, VCP, SPILLS, and LUST databases.

Documented release sites were evaluated to determine the nature of the release and affected media (i.e., soil and/or groundwater). Two categories of release sites were segregated: (1) sites with release of petroleum products such as gasoline, diesel, or oil, and (2) complex sites where releases of solvent, metals, or other contaminants requiring special considerations have occurred.

Release sites were also evaluated with respect to their distance from proposed development. For this study, all release sites within the project footprint or immediately adjacent to proposed developments were evaluated.

Sites of Potential Concern

Sites of potential concern include those with registered USTs, registered as RCRA generators, registered as PCB handlers (PADS), and associated with historical activities that used hazardous materials. These sites have not had documented releases, but, due to the nature of their business, pose a potential risk or liability in the future.

"UST Sites" pose a potential risk for several reasons. First, USTs and piping systems may leak without a release being detected. This can result in soil and/or groundwater contamination in areas that are presumed clean. In addition, the costs to remove USTs and remediate contamination on properties that are developed could be considerable. Identified sites include those with registered tanks only (tanks storing regulated substances). Heating oil tanks, which are not regulated, are not registered or tracked.

"RCRA Generators" are sites where hazardous waste is generated and stored prior to treatment or disposal. If a site is identified as a RCRA generator, it does not mean that a release of hazardous waste has occurred at the site. However, the presence of these materials at a facility increases the likelihood that a release can occur. Identified facilities are those that are registered with EPA and appear on their tracking database. PADS sites are considered a subset of RCRA generators.

Historical sites include a list of 13 areas of potential concern based on a review of historical airport operations compiled by the Port of Seattle. Most of these sites relate to fuel storage and distribution. The risk at these sites would be comparable to the previous discussion of UST sites. Two of the sites were former maintenance areas, with additional potential contaminants of concern, including metals and volatile organic compounds (VOCs).

M.2.1.2 Site Summary Information

Table M-1 provides a summary of documented and potential hazardous material release sites within and adjacent to the airport and other outlying Port of Seattle property supporting airport operations; Figure 5.12-1 in Section 5.12 of the main body of this environmental review provides site locations. Complex sites include areas that have had or may have had releases of contaminants other than petroleum hydrocarbons, including metals and VOCs. Table M-2 summarizes the number of the site types listed in Table M-1 and identifies the sites of highest concern within and adjacent to the airport. Sites of highest concern are those with documented releases to groundwater, including 10 on the Port of Seattle property and six on adjacent properties.

M.2.2 Solid Waste

This section provides the following information on solid waste generation and handling at Sea-Tac Airport:

- Airport Solid Waste Handling Practices
- Sources of Waste Streams and Associated Controls
- Waste Stream Volumes
- Recycling Practices and Affected Media
- Onsite Management

M.2.2.1 Airport Solid Waste Handling Practices

Solid waste collection services for Sea-Tac Airport are currently provided by SeaTac Disposal Company, a division of Allied Waste Services. This company has adequate waste collection and hauling capacity to accommodate existing demands. Construction, demolition, and land-clearing debris are hauled away by private vendors.

The Port of Seattle provides 12 trash collection receptacles (10 powered compactors and 2 open containers) for the passenger terminal buildings. In addition, there are trash receptacles at the fire station, maintenance buildings, parking garage, and ground transportation lots. These compactors and containers are hauled away by SeaTac Disposal on a scheduled basis. This last year, trash monitoring systems were installed on the powered trash compactors, requiring the user to swipe a special key to open the compactor to dispose

TABLE M-1
Summary of Documented and Potential Hazardous Material Release Sites Within and Adjacent to Sea-Tac Airport
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Site ID[a]	Site Name	Address	Type of Site [b]	Location
Documented Release Sites				
3, 5, 8	Sunset Park & Tub Lake Dump/Sunset Pit	S 136th /18th Avenue S SeaTac, WA 98168	LUST, UST, CSCSL, CERC-NFRAP, ICR, RCRA generator, petroleum release to soil and groundwater	Adjacent to Port property
11	Boeing Spares Dist. Center	2201 South 142nd SeaTac, WA 98168	LUST, UST, SPILLS, ICR, RCRA generator petroleum release to soil and groundwater, antifreeze release to soil	Adjacent to Port property
14	Joes Incorporated	14260 Des Moines Memorial Drive Seattle, WA 98168	LUST, UST, petroleum release to soil	Adjacent to Port property
46	Charley's Exxon	15041 Des Moines Memorial Dr Seattle, WA 98148	ICR, LUST, UST, petroleum release to soil and groundwater	Within Port property
63	SeaTac Transformer Site	154th St. S/Perimeter Rd N SeaTac, WA 98188	CSCSL, VCP petroleum and metals release to soil	Adjacent to Port property
80/102/135.2	Sea Tac Continental and United Fuel Farms	176th St/Airport Service Rd SeaTac, WA 98158	LUST, UST, CSCSL, petroleum release to soil and groundwater	Within Port property
83/88	Federal Express Corp. Seattle 2	2446/2450 S 161st Street Sea-Tac Airport SeaTac, WA 98158	UST, ERNS, HMIRS, RCRA generator, several petroleum surface spills to pavement	Within Port property
91	SeaTac Express, Inc.	16125 Air Cargo Rd Seattle, WA 98158	LUST, UST, petroleum release to soil	Within Port property
84/93	Airport Drayage Co./ AFCO Cargo Sea II LLC	16215 Air Cargo Road Seattle, WA	UST, RCRA generator, SPILLS, petroleum release to soil	Within Port property
97.2	Airborne Freight Corp	2580 S 165th Street Sea-Tac Airport	LUST, petroleum release to soil	Within Port property
101	Delta Air Lines Seattle (Fuel Farm)	16745 Air Cargo Rd Seattle, WA 98158 (Address is not location of release site)	CSCSL, VCP petroleum release to soil and groundwater	Within Port property
109	Lockheed Air Terminal	Sea-Tac Airport SeaTac, WA 98158	LUST, RCRA generator, petroleum release to soil	Within Port property
118.1/29.2	Pan American World Airway-SeaTac/AV-Gas	PO Box 68727 SeaTac, WA 98168	LUST, UST, ICR, petroleum and VOCs, release to soil and groundwater	Within Port property
118.2	Sea Tac Airport Fire Dept.	17205 Pacific Hwy S. Seattle, WA 98168	ICR, petroleum release to soil	Within Port property
121	United Airlines, Inc.	Seattle-Tacoma Intl Airport Seattle, WA 98158	LUST, UST, petroleum release to soil and groundwater	Within Port property

TABLE M-1
Summary of Documented and Potential Hazardous Material Release Sites Within and Adjacent to Sea-Tac Airport
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Site ID[a]	Site Name	Address	Type of Site [b]	Location
Documented Release Sites (continued)				
125	UNOCAL 4871	17606 Intl Blvd Seattle, WA 98188	LUST, UST, VCP, CSCSL, petroleum release to soil and groundwater	Adjacent to Port property
126	Hertz Rent A Car	Seattle-Tacoma Intl Airport SeaTac, WA 98158	LUST, UST, petroleum release to soil and groundwater	Within Port property
128	Budget Rent a Car System	17801 Intl Blvd Seattle-Tacoma Intl Airport SeaTac, WA 98158	LUST, UST, ICR, VCP, CSCSL petroleum release to soil and groundwater	Within Port property
129.1/137.1	SeaTac Crawford Aviation/ SeaTac Pan Am Fuel Farm	Sea-Tac Intl Airport SeaTac, WA 98158	LUST, CSCSL, petro-leum release to soil	Within Port property
135.1	Delta Autogas Cluster	Sea-Tac Intl Airport Seattle, WA 98158	LUST, UST, petroleum and VOCs, release to soil and groundwater	Within Port property
137.2/142	SeaTac NW Fuel Farm/ Northwest Airlines Inc. (Hangar Tanks, Hydrant, Baggage Tunnel/Gate B2)	Sea-Tac Intl Airport SeaTac, WA 98158	CSCSL, LUST, UST, RCRA generator, petroleum release to soil and groundwater	Within Port property
138	Budget Rent a Car	18445 Intl Blvd SeaTac, WA 98188	LUST, UST, ICR, VCP, CSCSL petroleum release to soil and groundwater	Adjacent to Port property
139	Chevron USA Inc. 92259	18514 Intl Blvd SeaTac, WA 98188	LUST, UST, ICR, RCRA generator petroleum release to soil and groundwater	Adjacent to Port property
140	Puget Sound Energy	18470 Intl Blvd SeaTac, WA 98188	ICR, petroleum release to soil	Adjacent to Port property
146	SeaTac Alaska Air Hangar Bldg/Hangar 2	18650 Alaska Service Road SeaTac, WA 98156	ICR,CSCSL-NFA, UST, VCP, RCRA generator, petroleum release to soil and groundwater	Within Port property
151	SeaTac Gasoline/Budget Rent-a-Car	2806 S 188th St. SeaTac, WA 98188	LUST,UST,ICR, petroleum release to soil and groundwater	Adjacent to Port property
154	Marriott In Flite Services/ LSG Sky Chefs 1318	18850 28th Avenue S Seattle, WA 98188	LUST, UST, ICR, RCRA generator, petroleum release to soil	Adjacent to Port property
170	SeaTac Alaska Airlines/ FLT OPS/Admin. Training Center/Alaska Airlines Print Shop	2651 S 192nd Street Seattle, WA 98188	UST, LUST, ICR RCRA generator, petroleum release to soil	Adjacent to Port property

TABLE M-1
Summary of Documented and Potential Hazardous Material Release Sites Within and Adjacent to Sea-Tac Airport
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Site ID[a]	Site Name	Address	Type of Site [b]	Location
Potential Release Sites				
41	Malinak Grace/Lora Lake Apartments	S 149th and Des Moines Way South Seattle, WA 98168	RCRA generator	Within Port property
62	Burien CDLK	8th Ave and Des Moines Way Burien, WA 98148	UST	Adjacent to Port property
69	Burlington Air Express	2580 S 156th St. Seattle, WA 98158	RCRA generator	Within Port property
71.1	US DOT FAA Seattle	2451 S 156th St Seattle, WA 98188	RCRA generator	Within Port property
71.2	Amerijet Intl Airline	2345 S 156th St Seattle, WA 98158	PADS, RCRA generator	Within Port property
85	Host	160th & Host Road SeaTac, WA 98158	UST	Adjacent to Port property
87	AFCO Cargo Sea III LLC	2460 S 161st St Seattle, WA 98186	UST	Within Port property
89	Emery World Wide ACF Co.	2625 S 161st Street Sea-Tac Airport	RCRA generator	Within Port property
97.1	Air Cargo Building	2600 S 165th Street Sea-Tac Airport	UST, tank removed	Within Port property
99	U.S. Postal Service/ USPS Air Mail Center	16601 Air Cargo Road Sea-Tac Airport	UST, RCRA generator	Within Port property
108.1	Markair Inc. Seattle STA	17205 Pacific Hwy S 3105A SeaTac, WA	RCRA generator	Within Port property
108.2	National Car Rental	Sea-Tac Intl Airport SeaTac, WA 98185	UST	Within Port property
112	Port of Seattle Sea-Tac Intl Airport	2400 S 170th St Seattle, WA 98185	RCRA generator, PADS	Within Port property
137.3	Avis Rent A Car System, Inc.	Sea-Tac Intl Airport SeaTac, WA 98158	UST	Within Port property
137.4	National Car Rental System, Inc.	Sea-Tac Intl Airport Rental Center SeaTac, WA 98158	UST	Within Port property
137.5	Eastern Airlines	2450 S Fill Stand Rd S SeaTac, WA 98158	RCRA generator	Within Port property
176	Seattle Christian School	19639 28th Ave S Seattle, WA 98188	RCRA generator	Adjacent to Port property
P-1	Former Maintenance and Paint Shop	Sea-Tac Airport	Historical complex	Within Port property
P-2	Former Gas Station (pre-1978)	Sea-Tac Airport	Historical petroleum	Within Port property
P-3	Former Lagoon Area (pre-1966)	Sea-Tac Airport	Historical complex	Within Port property
P-4	Possible Refueler Tank	Sea-Tac Airport	Historical petroleum	Within Port property

TABLE M-1
Summary of Documented and Potential Hazardous Material Release Sites Within and Adjacent to Sea-Tac Airport
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Site ID[a]	Site Name	Address	Type of Site [b]	Location
Potential Release Sites (continued)				
P-5	Abandoned Hydrant Line (pre-1971;1990)	Sea-Tac Airport	Historical petroleum	Within Port property
P-6	Possible Concourse A Area Fuel Tank	Sea-Tac Airport	Historical petroleum	Within Port property
P-7	Possible Parking Garage Fuel Tanks	Sea-Tac Airport	Historical petroleum	Within Port property
P-8	Former Gas Station (pre-1969)	Sea-Tac Airport	Historical petroleum	Within Port property
P-9	Possible Transformer Room Fuel Tank	Sea-Tac Airport	Historical petroleum	Within Port property
P-10	Abandoned Hydrant Line (pre-1975)	Sea-Tac Airport	Historical petroleum	Within Port property
P-11	Former Maintenance Hangar/Tank Area	Sea-Tac Airport	Historical complex	Within Port property
P-12	Possible Air Cargo Area Tanks	Sea-Tac Airport	Historical petroleum	Within Port property
P-13	Abandoned Hydrant Line	Sea-Tac Airport	Historical petroleum	Within Port property

[a] ID numbers provided by database search (EDR, 2005) or assigned based on historical document review.

[b] Sites are listed on regulatory database in capital letters.

of their trash. Beginning in the fall of 2005, tenants will be charged for their garbage. To encourage recycling, those items placed into recycling containers will have no charge.

The Port of Seattle has adjusted solid waste handling at the airport to meet the recently increased traffic flows and needs of the Port of Seattle offices, employees, airport operations, and public areas. These improvements support the ongoing South Terminal Expansion and Central Terminal Expansion operations undertaken in 2004 and 2005.

TABLE M-2
Number of Hazardous Materials Sites Within and Immediately Adjacent to the Port of Seattle Property
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Documented Release		Potential Release			Sites of Highest Concern (release to groundwater)	
Petroleum	Complex	UST	RCRA Generator	Historical	On Port of Seattle Property	Adjacent
24	4	8	10	13	10	6

RCRA = Resource Conservation and Recovery Act (hazardous waste generators registered with Ecology).
UST = underground storage tank (tank owners registered with Ecology).
Historical = sites identified by Port of Seattle in February 2003 (Aspect 2005).

Source: EDR, 2005.

M.2.2.2 Sources of Waste Streams and Associated Controls

There are six main sources of solid waste generated at Sea-Tac Airport:

- Port of Seattle employees and operations
- The public in concourse areas
- Tenants and concessionaires
- International airlines
- Airlines in ramp and airfield operations
- Construction, demolition, and land-clearing (CDL) activities

The Port of Seattle has assumed direct responsibility for collecting and removing all solid waste generated at the airport, except for airline and CDL waste. Solid waste disposal services not provided by the Port are charged back to tenants. The Port is considering a plan to extend their airport services to include the airlines. CDL is removed by general contractors for each project.

International airlines generate a large volume of waste taken from jets as they arrive, which is collected by the appropriate food service company and autoclaved on site. This waste is then placed in the airport main compactors with all other Port of Seattle common solid waste.

M.2.2.3 Waste Stream Volumes

Approximately 3,894 tons of solid waste and an additional 383 tons of airfield foreign object debris (FOD) were generated by airport activity in 2004 (Table M-3). FOD includes waste from airplanes and debris brought onto the airfield by vehicles such as dirt and nails. This figure includes solid waste from all the above sources, including tenants and concession-aires (excluding airfield FOD).

TABLE M-3
2004 Sea-Tac Airport Waste Stream Volumes
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Location	Weight (tons)
Main Service Dock	2,794 (Includes international airline food waste)
Concourse A	134
North Satellite	417
South Satellite	353
Parking	100
Auto Shop	89
Fire Station	7
Total	**3,894 (tons)**

Source: Allied Waste Service invoices.

M.2.2.4 Recycling Practices and Affected Media

The Port of Seattle launched a Comprehensive Waste Reduction and Recycling Program in August 2001 at Sea-Tac Airport, partnering with the consulting firm of Corporate Recycling Services. This program expanded recycling to include all offices, Port of Seattle maintenance shops, public venues and tenants. Since 2001, the program has increased recycled materials diverted from the waste stream by over 600 percent.

Amounts of materials recycled are listed in Table M-4.

TABLE M-4
2004 Sea-Tac Airport Recycled Volumes
Sea-Tac Airport Comprehensive Development Plan Environmental Review

Material	Weight (tons)
Organics	
Paper (cardboard and mixed)	456
Plastics (films, bags, bottles, jugs)	18
Wood and yard waste	17
Coffee grounds and filters	42
Inorganics	
Glass (bar and restaurant bottles)	43
Metals (ferrous and nonferrous)	124
Total	700 (tons)

Source: Port of Seattle, 2005.

The Port of Seattle also has a committee working on waste prevention for Sea-Tac Airport. In April 2005, the committee sponsored a Recycled Content Fair for all tenants to obtain information directed at decreasing waste generation.

M.2.2.5 Onsite Management

Solid waste is collected into six large trash compactors located at the Main Terminal Service Dock, two Central Terminal Docks, Concourse A, and the North and South Satellites. These are serviced by SeaTac Disposal. Large drop boxes are colocated with each trash compactor and serviced by SeaDruNar Recycling Company.

The trash compactors are maintained by the Port of Seattle maintenance department; operations are overseen by a dock manager. In addition, an electronic trash monitoring system is being installed to measure content level in order to control the frequency of pickup and record usage by Port of Seattle departments and tenants. Outlying locations, such as the maintenance shops and fire station, are serviced by small dumpsters under their direct supervision. These dumpsters are serviced by SeaTac Disposal, and this practice will continue when the Comprehensive Development Plan is completed.

All trash compactors are self-contained and sealed to prevent fluid leakage. Cooking oils and grease are not disposed into compactors, but are collected separately using a caddy and tank system.

M.3 References

Aspect Consulting [Aspect}. 2005. *Seattle-Tacoma International Airport Draft Phase 1 Groundwater Study Report*. Prepared for Port of Seattle, by Aspect Consulting, LLC Bainbridge Island, Washington in association with S.S. Papadopulos & Associates.

EDR. 2005. Environmental database map search of Port of Seattle Comprehensive Development Plan EIS, inquiry number 01455344.1r. Environmental Data Resources, Milford, Connecticut. June 29, 2005.

Port of Seattle. 2005. Update to general airport solid waste pollution prevention plan. Provided by Doug Holbrook, manager SeaTac Utilities, Aviation Business Development, August 5, 2005.